Reviewer's report

Title: Mokken Scale Analysis of Health and Well-being Questionnaire item responses: a Non-Parametric IRT Method in Empirical Research for Applied Health Researchers

Version: 2 Date: 8 December 2011

Reviewer: Cody Ding

Reviewer's report:

Minor essential revisions:

This revised version of the manuscript greatly improved the clarity of the presentation, and it provides a much better coherence of what the authors were trying to achieve. My following suggestions are aimed to provide comments for clarification of several points.

1. The first paragraph on page 3. Mokken scaling method is one method, I would suggest to delete word "powerful" since it is not clear what is meant by powerful.

2. It said that Mokken scaling can scrutinize the appropriateness and performance of IRT. Need to clarify or specific about what the author meant by appropriateness and performance. I assume that it is regard to assumptions. If so, state it.

3. On page 5. it said that if a respondent is known to have answered 6 (out) of 14 dichotomous items correctly then it is most likely (since the DMM is a probabilistic model) that the 6 items answered correctly were the easiest items in the set. Why "easiest"? I did not see this conclusion based on the information presented.

4. The authors used R package, and indicated readers can replicate the analysis. If this is the intention, the R code used should be provided in the appendix.

5. On page 9, this paragraph is not very helpful, and it can be deleted. Or make it clearer with respect to the discussion on reliability.

6. On page 10, the heading is Results. I suggest to delete this heading since it is more than just results.

7. On page 18, last paragraph, Item 4 had tsig value of 10, is there any cut-off point for significant violation?

8. Column #ac in the tables. There is a need to explain what ac indicates since this is a key measure so that readers know what ac shows without reading another materials.
Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.